

**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**In re the Application of**

**Masanobu NINOMIYA et al.**

**Group Art Unit: 2852**

**Application No.: 09/722,828**

**Examiner: J. Dote**

**Filed: November 28, 2000**

**Docket No.: 107971**

**For: TONER FOR DEVELOPING ELECTROSTATIC LATENT IMAGE, TWO-  
COMPONENT DEVELOPER, AND IMAGE-FORMING PROCESS**

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**DECLARATION UNDER 37 C.F.R. §1.132**

**Director of the U.S. Patent and Trademark Office  
Washington, D.C. 20231**

**Sir:**

**I, Masanobu Ninomiya, a citizen of Japan, hereby declare and state:**

- 1. I have a master's degree in science which was conferred upon me by  
Hiroshima University in Hiroshima-shi, Hiroshima, Japan in 1991.**
- 2. I have been employed by Fuji Xerox Co., Ltd. since 1991 and I have had a  
total of 10 years of work and research experience in organic chemical materials.**
- 4. I am familiar with the above-identified application.**
- 5. I and/or those under my direct supervision and control have conducted the  
following experiments:**

**Experiments were conducted to determine the molecular weight and weight ratios of  
the developer described in Example 30 (incorporating binder resin 27) of U.S. Patent No.  
5,250,382 to Shimojo et al. ("Shimojo"). Based on the provided Mn, Mw and blend ratio of  
the domain and matrix of Example 30, the following results, as shown in the Table below,  
were obtained.**

|        | Mn   | Mw    | Blend<br>Ratio  | Molecular<br>weight of at<br>least<br>$1 \times 10^6$<br>(wt.%) | Ratio of<br>differential<br>molecular<br>weight<br>distribution<br>of $5 \times 10^3$<br>(%) | Ratio of<br>differential<br>molecular<br>weight<br>distribution<br>of $1 \times 10^5$<br>(%) |
|--------|------|-------|-----------------|---|--|--|
| Domain | 4600 | 12000 | <del>3088</del> | 0.0   | 0.569  | 0.098  |
| Matrix | 7000 | 21000 | 70              |   |  |  |

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Thus, as shown in the above table, the developer according to Example 30 of Shimojo does not meet the values specified for the claimed percentages of the differential molecular weight distribution of  $5 \times 10^3$  or  $1 \times 10^5$ .

6. The November 6, 2002, Office Action asserts that binder resin 28 of Shimojo also shows domain and matrix resins that are within the molecular weight limitations presently claimed. It is noted that binder resins 39 and 40 of Shimojo also have domain and matrix resins having molecular weights comparable to that of Shimojo binder resin 28. Although binder resins 28, 39 and 40 of Shimojo may satisfy the requirements of claim 8 with respect to the molecular weight values, these binder resins would not meet the claimed values for the ratio of differential molecular weight distribution of  $5 \times 10^3$  (%). In fact, based on the results obtained above, the ratio of differential molecular weight distribution of  $5 \times 10^3$  (%) for these binder resins would be greater than 0.569 because the toners of the binder resins 28, 39 and 40 of Shimojo have molecular weights that are even greater than that of Example 30. Thus, the ratio of differential molecular weight distribution of  $5 \times 10^3$  (%) would be even greater than that obtained with Example 30 of Shimojo.

7. I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and

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the like so made are punishable by fine and/or imprisonment under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing therefrom.

Date:

2 / 11 / 2003Masanobu Ninomiya  
Masanobu Ninomiya